REMARKS

Applicants appreciate the careful consideration and favorable treatment of the claims by the Examiner in that claims 7-12 have been indicated as containing allowable subject matter.

The Examiner has rejected the remaining claims based on prior art grounds. More specifically, claim 1 stands rejected under 35 U.S.C. 102(e) as being anticipated by Durman et al. (U.S. Patent No. 6,013,052); and claims 2-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Falwell et al. (U.S. Patent No. 5,944,690) in view of Durman et al.

Durman et al. disclose a catheter and piston-type actuation device for use with same. The catheter includes a piston that is slidably mounted and one end of a steering wire is secured to a leaf spring in the distal end of the catheter body, while the other end is secured to handle body. When the piston is moved distally, the steering wire exerts a pulling force on the distal end of the catheter body, thereby causing deflection of the catheter body. The catheter includes a biasing element that applies a distally directed biasing force to the piston. The biasing force reduces the amount of force that must be applied to the piston by the physician to move the piston in the distal direction. As can be seen, the spring 30 merely exerts a force against the piston in the distal direction resulting in bending of the catheter tip.

Accordingly, the spring 30 applies a force to the piston (actuator) that assists the user is moving the piston in only the distal direction. This force will also help to maintain the catheter in a bent position. In this manner, the Examiner contends that the spring 30 will serve to counter the return to center force (i.e., the piston moving in the proximal direction).

The Examiner looks to the Falwell reference for the teaching of a slidable control mechanism. Falwell discloses a bi-directional catheter with two control wires; however, Falwell is completely silent as to a counter-balance mechanism. The Examiner contends that a combination of the Durman reference with the Falwell reference yields the present invention.

Applicants respectfully disagree with this position for the following reasons.

At best, the Durman reference only teaches applying a spring force in *one* direction, namely, the distal direction toward the distal end. As previously mentioned, the Durman device is not a bi-directional catheter and therefore, the active counterforce mechanism is configured only for use with a control mechanism that operates by moving only in a single direction. When a compression (coil) spring exerts a force against an object in the arrangement shown in Durman, it will result in the object being driven in only a single direction, in this case, in the distal direction to cause bending of the catheter in a single direction.

In Durman, the compression spring is disposed between a fixed abutment 22 and one end of the piston 18 that is connected to the deflectable shaft. The inclusion of a compression spring with the Falwell control mechanism will not yield a device that offers counterforce mechanism that reduces deflection forces in *both* the first and second deflection directions since the compression spring merely releases its stored energy along a linear axis in a *single direction*. If the slider of Falwell was coupled at one end to compression spring, the slider would merely be propelled in *a single direction* to cause only a reduction in a deflection force needed to deflect the shaft in *a single direction*. In other words, Durman teaches disposing the compressive force element between a fixed object (abutment 22) and a movable object (piston 18) so that movement of the piston in one direction (the proximal direction) results in energy being stored in the spring as it is compressed and conversely, once the spring is compressed and the piston moves in a distal direction, the spring releases its energy. Thus, it will be seen that when the spring is moved in a second direction, namely, the proximal direction, the spring does not reduce a deflection force but rather the opposite is true in that the spring stores energy. Thus, the compression spring of Durman is not configured to apply a force to the slider of Falwell to cause the control mechanism to be counter-balanced in *two* directions of movement for deflection in *two directions*.

A combination of Durman and Falwell at best teaches placing a compression spring against one end of the slider of Falwell but as discussed above, this will not produce the claimed invention since a compression spring can only exert a force in a *single direction*, while the counterforce mechanism of the present invention is configured to exert a counterforce when the control mechanism is moved in *two* directions.

Claim 1 has been amended to recite these differences and the fact that the counterforce mechanism acts in two directions as opposed to the single direction design of the compression spring of Durman.

Based on the foregoing, Applicants respectfully request reconsideration and allowance of amended claim 1.

Claim 2 has been amended similar to claim 1 and Applicants respectfully submit that claim 2, as amended, should be allowed for the same reasons as to why claim 1 should be allowed as discussed above in detail.

Claims 3-6 should be allowed as depending from what should be an allowed independent claim 2, as amended.

Claim 7 has been amended into independent form and based on the Examiner's comments, claim 7 should be allowed.

Claims 8-10 should be allowed as depending from what should be allowed independent claim 7.

Claim 11 has been amended into independent form and based on the Examiner's comments, claim 11 should be allowed.

Claim 12 should be allowed as depending from what should be allowed independent claim 11.

No other issues remain.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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